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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,164

01/19/2006

Jaouad Zemmouri

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EXAMINER

PAPAPIETRO, JACQUELINE M

ART UNIT

PAPER NUMBER

3739

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/521,164

**Applicant(s)**

ZEMMOURI ET AL.

**Examiner**

Jacqueline Papapietro

**Art Unit**

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005 and 19 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/14/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Oath/Declaration***

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because the inventors' signatures have been omitted.

### ***Specification***

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

The disclosure is objected to because of the following informalities: "a clinical form of new vessels" as recited in line one of page 3 and "treatments constituted by conventional medication" as recited in lines 34-35 of page 3 are unclear in meaning.

Appropriate correction is required.

The use of the trademark VISUDYNE has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Objections***

Claims 1, 3, 6, and 8 are objected to because of the following informalities: Claims 1 and 6 recite "a light source" in line 2, "similar to the light source" in line 4, and "said light source" in line 5. For examining purposes, it has been assumed that "said light source" relates to "a light source" and that "the light source" is a different light source. However, clarification and correction is required. Claims 3 and 8 recite "the therapeutic light source," which lacks proper antecedent basis. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin (US 6258082 B1).

Regarding claim 1, Lin discloses an apparatus comprising a light source (1) that is designed to emit a therapeutic light beam presenting an emission wavelength lying in

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the range 0.5 microns to 3.2 microns (abstract, line 5), which includes the claimed range. A recitation with respect to the manner in which an apparatus is intended to be employed does not impose any structural limitation upon the claimed apparatus which differentiates from a prior art reference disclosing the structural limitations of the claim.

Regarding claim 2, Lin discloses the apparatus according to claim 1 wherein the power of the therapeutic light beam lies in the range of about 0.1 W to 5.0 W (column 9 line 21), which overlaps the claimed range.

Regarding claim 3, Lin discloses the apparatus according to claim 1 wherein the light source is a laser source (1).

Regarding claim 6, Lin discloses a method consisting in using a light source that enables a therapeutic light beam (2) to be emitted in a manner similar to the light source used in the context of dynamic phototherapy, wherein said light source is designed to emit a therapeutic light beam presenting an emission wavelength lying in the range 0.5 microns to 3.2 microns (abstract, line 5), which would inherently generate intracellular singlet oxygen directly and in sufficient quantity. The range 1.26 microns to 1.27 microns is within the range of wavelengths disclosed by Lin. Applicant has claimed the method in very broad terms with only a single step of using a light source. There is no limitation claimed regarding the direction of the light source or the target of the therapy. Where a reference discloses the terms of the recited method steps, and such steps necessarily result in the desired and recited effect, that the reference does not describe the recited effect *in haec verba* is of no significance as the reference meets the claim under the doctrine of inherency.

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Regarding claim 7, Lin discloses the method according to claim 6, wherein the power of the therapeutic light beam lies in the range of about 0.1 W to 5.0 W (column 9 line 21), which overlaps the claimed range.

Regarding claim 8, Lin discloses the method according to claim 6 wherein the therapeutic light source is a laser source (1).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4-5 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Rice et al (US 6200309 B1).

Regarding claims 4 and 9, Lin discloses apparatus according to claim 3 and the method according to claim 8, but does not specify an optical fiber Raman laser. Rice teaches the use of an optical fiber Raman laser (310, Fig 9) for photodynamic therapy

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with lasers in a variety of emission wavelengths, including the mid-infrared region (column 12 lines 15-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lin with the optical fiber Raman laser of Rice in order to achieve the emission wavelength specified by Lin.

Regarding claims 5 and 10, Lin in view of Rice discloses the apparatus according to claim 4 and the method according to claim 9. Lin does not disclose an ytterbium-doped optical fiber laser. Rice teaches the optical fiber Raman laser comprising a pump laser diode (320), an ytterbium-doped optical fiber laser (column 12 lines 16-19), and a Raman converter (400) serving to transpose the wavelength of the beam coming from the ytterbium-doped optical fiber laser. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Lin in view of Rice in order to efficiently output the desired laser beam in the given wavelength range.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline Papapietro whose telephone number is (571) 272-1546. The examiner can normally be reached on M-F 8am-4:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMP

Jacqueline Papapietro  
Art Unit 3739

  
HENRY M. JOHNSON, III  
PRIMARY EXAMINER